



U.S. Department  
of Transportation  
Federal Railroad  
Administration

1200 New Jersey Ave, SE  
Washington, DC 20590

## 2012 ROW Fatality & Trespass Prevention Workshop

### SUMMARY

Trespassing along railroad and transit rights-of-way (ROW) is the leading cause of rail-related deaths in America. Nationally, more than 550 trespass fatalities and nearly as many injuries occur each year. The vast majority of these events are preventable. In general, most trespassers are pedestrians who use railroad tracks as a shortcut.

Based on the success from the first ROW Fatality and Trespass Prevention Workshop held in 2008 [1], the U.S. Department of Transportation (US DOT) Federal Railroad Administration (FRA) and Federal Transit Administration (FTA) sponsored another national workshop on August 14-16, 2012 in St. Louis, MO. The workshop consisted of a varied program presented by rail/transit experts and safety professionals who shared their ideas on key issues, best practices, technical developments, human behavior, law enforcement, and public education and awareness outreach methods and techniques related to trespass prevention. The workshop allowed over 185 attendees (representing Federal, State, and local governments, freight and passenger railroads, transit agencies, labor unions, academia, non-profit organizations, and consultants) to learn about and discuss advances, accomplishments, challenges, approaches for ROW fatality and trespass prevention. The result was an open exchange of ideas, an opportunity to network with peers, a showcase of the newest and best safety-related developments, and discussion of future recommended actions. The workshop concluded with the development of a list of 23 high priority recommended actions across six topic areas.



2012 ROW Fatality and Trespass Prevention Workshop Opening Session

## **BACKGROUND**

In 2008, the FRA and the FTA sponsored the first ROW Fatality and Trespass Prevention Workshop [1]. This workshop was the first to bring together multiple rail constituents including transit, freight and commuter rail to focus on common problems and solutions surrounding ROW fatality and trespass prevention, which has become a major risk mitigation area facing the rail community. Based on the success from the 2008 workshop, the FRA and the FTA sponsored a follow-on workshop on August 14–16, 2012 in St. Louis, Missouri.

## **OBJECTIVE**

The purpose of the workshop was two-fold:

1. To provide FRA, FTA, and key stakeholders with a status update on current and future activities in the areas of ROW fatality and trespass prevention, and
2. To solicit the workshop attendees' ideas on prospective future action and research priorities.

This was achieved by bringing together subject matter experts to share information, collaborate, identify and prioritize specific recommended actions related to education, engineering, and enforcement to facilitate the reduction of ROW trespass incidents and fatalities.

## **WORKSHOP STRUCTURE**

To assist with the structure and direction of the workshop, a steering committee was nominated by FRA and FTA, with the goal to provide a diverse group of experts to address different perspectives of trespass prevention. Members of the steering committee were composed of representatives of various US DOT agencies and their key partnering organizations (both public and private). The steering committee developed the technical agenda, including the identification of six topic areas, identified appropriate speakers, and actively participated in the execution of the workshop.

The workshop was kicked off with general welcome addresses by Metro St. Louis Chief Executive Officer Mr. John M. Nations and FTA Region VII Administrator Mr. Mokhtee Ahmad and a keynote address by FRA Administrator Joseph C. Szabo. The welcome session was then followed by 23 technical presentations across the following six topic areas:

- Pedestrian Safety Issues
- Hazard Management
- Design, Technology, and Infrastructure
- Community Outreach
- Enforcement
- Intentional Deaths/Acts

The workshop then concluded with the development of prioritized recommended actions within each topic area developed by the working groups, each composed of 20-30 attendees from across the spectrum of organizations participating at the workshop.

## **FINDINGS**

The six working groups developed over 80 ideas ranging from new or expanded initiatives, strategies, and programs, to new research projects. Each group was also tasked to identify the top three to five recommended actions for their respective topic area. This vetting process resulted in the identification of

23 high priority recommended actions. These are listed and described (language used as agreed to by the working groups) per topic area below:

**Pedestrian Safety Issues** (As reported and described by the working group)

1. *Data Collection and Analysis:* Lack of centralized data collection; Limited access to data from partners and stakeholders; Different interpretation of data; Inconsistent definition of incident types/data submission; Different reporting criteria for different agencies; Innovations not being systematically analyzed to determine effectiveness.

2. *Engineering Design for Pedestrian Safety:* Providing an engineering design manual that provides Practical Cost Effective Engineering Design Solutions that will enable railroads to mitigate pedestrian crossing hazards during preliminary design but more importantly before revenue service commences.

3. *Distracted Behavior - Pedestrians and Cyclists:* Distractions such as electronic devices, clothing, reading material, consumption of alcohol/drugs, or food and beverage cause crossing users to be oblivious to the railroad environment creating a hazard. The distracted behavior results in near misses, walking into trains, injuries, and fatalities.

4. *Standardize Active/Passive Signage and Evaluate Effectiveness:* A standard list of effective active and passive signage for transit, heavy rail, passenger service and freight, would be of benefit so in our mobile society, the traveling public will receive the same message regardless of location.

**Hazard Management** (As reported and described by the working group)

1. *Safety Culture:* Elevate safety within organizational culture (incorporate safety into roles/responsibilities). Develop model training program on how to implement.

2. *Data Collection:* Develop best practices (data quality, aggregate vs. disaggregate data, near miss reporting, what technology is effective).

3. *Hazard Management:* Develop common definition, interpretation and application. Develop a formal committee (Transit Rail Advisory Committee for Safety/Railroad Safety Advisory Committee).

**Design, Technology and Infrastructure** (As reported and described by the working group)

1. *Fencing Design:* Establish robust standardized fencing design and engineering criteria to inform local decision-making.

2. *Barriers Designed to Mitigate Pedestrian Distraction:* Railroad preemption to lock the mechanism against entry upon train detection.

3. *Exploratory Technology Research and Education:* Incorporate existing technologies from other industries to apply to rail ROW.

4. *Train-activated In-pavement Warning Lights:* Lights would activate as train approaches to provide additional warning to pedestrians.

**Community Outreach** (As reported and described by the working group)

1. *Public Awareness Campaign:* Deliberate, sustained connections within communities. An overarching approach to prevent injury and death that can be customized for specific demographic, cultural and regional audiences. A brand/slogan that is distinctive and memorable. Collaborative, proactive teaming of federal and local government and industry bringing stakeholders into the process.

2. *Community Outreach Partnerships:* A national initiative to gather stakeholders in communities in developing and implementing trespassing reduction program.

3. *National Community Awareness Day:* Implement a railroad trespasser prevention awareness day.

4. *Outreach and Awareness Toolkit*: Communications resources providing local relevance addressing ongoing issues and providing a means to problem solve.

**Enforcement** (As reported and described by the working group)

1. *Railroad Police Authority*: Seek full police authority, across all 50 states, for railroad police officers.
2. *Broad Based Trespass Law*: Railroad specific trespass law that can be applied broadly across the US (consistent language).
3. *Strategic Approach to Different Types of Trespassers*: Focus on 'high value' targets, i.e. trespassers w/ malicious intent, homeless, drug/alcohol (impaired) should be different than your approach to the casual trespasser.
4. *Crucial Conversations within the Judicial System*: There is a need to have 'crucial conversations' with your local courts/ prosecutors to encourage consistent enforcement of trespass laws for violators.
5. *Law Enforcement Grants for Trespass Enforcement/Abatement*: Seek opportunities to apply for and/or develop law enforcement grants that can target rail ROW trespass behavior.

**Intentional Deaths/Acts** (As reported and described by the working group)

1. *Education*: How can message change behavior. How to create a deterrent effect? How to alter societal mindset regarding illegal trespassing.
2. *Eliminating Trigger Terminology from Public Communication*: What terminology can/should be used in media, presentations, websites, and technical reports. Develop guidelines for terms to share info without providing unintentional triggers.
3. *Message that Trains Don't Always Kill*: Develop campaign/marketing that not all strikes result in fatalities. Also, stop campaigns that trespass will kill you.

## CONCLUSIONS

The goal of this workshop was to share existing industry leading practices and explore new strategies that the rail industry could pursue to reduce the number of ROW trespasser incidents and fatalities. The FRA and FTA anticipate that the results of this workshop will be used by US DOT modal administrations and their stakeholders to enhance safety on the nation's rail transportation network.

## REFERENCES

[1] Adduci et al. (2009 Feb.) *ROW Fatality and Trespass Reduction Workshop 2008 – Summary of Results* (Publication No. DOT/FRA/ORS-09/001). Washington, DC: FRA.

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